

SYSTEM OPERATIONAL REQUEST: 2007 - USFWS/IDFG - 1

TO: General Gregg Martin
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COE-NWD
COE-Water Management
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COE-Seattle District
USBR-Boise Regional Director
BPA-Administrator
BPA-PG-5

FROM: Chip Corsi, Regional Supervisor, Idaho Department of Fish and Game
Rich Torquemada, acting Supervisor, U.S. Fish and Wildlife Service
Ford Elsaesser, Pend Oreille/Priest Lakes Commission

SUBJECT: Request for the fall draw down of Lake Pend Oreille, Idaho during 2007, to enhance kokanee spawning success.

SPECIFICATIONS:

Draw Lake Pend Oreille down to an elevation no lower than 2055' while minimizing or eliminating the need to spill at Albeni Falls Dam. If possible, reach the elevation of 2055' by November 20, 2007. The lake should then go no lower than whatever elevation is reached on November 20 for the duration of the winter. During the kokanee spawning season, November 20 to December 31, keep the lake within 0.5' above the level set on November 20th ; ideally 2055.0' to 2055.5'.

JUSTIFICATION:

In Lake Pend Oreille, bull trout are heavily dependent upon kokanee as forage. Without kokanee, lake trout will likely replace bull trout as the dominate char in the lake. Examples of this negative population interaction include Flathead Lake, Montana and Priest Lake, Idaho. Adult kokanee in Lake Pend Oreille are at record low levels. Three decades of annual deep drawdown during the winter months are believed to be a contributing factor to the large declines in kokanee abundance, and are more recently exacerbated by the combined predation effects of lake trout and rainbow trout. Both populations of predators appear to be increasing.

The decision to hold Lake Pend Oreille higher this winter was based on several factors. First, keeping Lake Pend Oreille higher during winter, after a winter of draw down, has been shown to enhance kokanee spawning. The higher lake level inundates shoreline areas that were previously exposed to wave action, and provides an abundance of good spawning habitat. Secondly, the National Weather Service's Climate Prediction Center forecast on September 20th was for above normal precipitation during November, December, and January (http://www.cpc.noaa.gov/products/predictions/long_range/lead03/off_index.html). Keeping Lake Pend Oreille higher in years with above average November – January

precipitation may help to limit river flows below Bonneville Dam and aid in keeping chum salmon spawning at lower elevations where their redds will not be dewatered later in the winter. Third, Lake Pend Oreille was drawn down to a low pool level last winter. It is undesirable to have back-to-back years of draw down which could impact consecutive year classes of kokanee. These factors were used in a decision tree to help guide the selection of the winter lake level. That decision tree is included below. For these reasons we recommend the lake be held 4' higher than low pool level during the upcoming winter.

Start

Table 1. Decision Tree to guide selection of the winter lake level for Lake Pend Oreille.

What is the weather forecast for Nov, Dec, and January by the National Weather Service, Climate prediction center on the third Thursday in September. Prediction is for the majority of the Columbian River watershed.

